

Product Specification

24-Port 10/100/1000Mbps Gigabit Ethernet Switch

GSW-2401

Version 6.0

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Change History:

| Revision: | Date: | Author: | Change List |
|-------------|------------|-----------|--|
| Version 1.0 | 2005/05/05 | Marc Liao | Initial Release |
| Version 2.0 | 2006/08/07 | Marc Liao | Hardware change |
| Version 3.0 | 2008/06/23 | Marc Liao | Hardware change |
| Version 4.0 | 2009/08/28 | Marc Liao | Hardware change <ul style="list-style-type: none">- Change chip/ PHY from Marvell to Broadcom- LED indicator change |
| Version 5.0 | 2012/8/20 | Marc Liao | Hardware change <ul style="list-style-type: none">- Chipset/ PHY changed- RJ-45 Port & LED location change- Power Supply Unit change- Fan less designed |
| Version 6.0 | 2014/9/15 | Marc Liao | Hardware change <ul style="list-style-type: none">- Chipset changed- Power LED location change |

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|---------------------|-----------|---------------------|-----------|
| Author: | Marc Liao | Editor: | Marc Liao |
| Reviewed By: | Kent Kang | Approved By: | Tom Shih |

1. PRODUCT DESCRIPTION



Cost-Effective Gigabit Solution for Enterprise Backbone and Data Center Networking

PLANET GSW-2401 Gigabit Ethernet Switch provides 24 RJ-45 10/100/1000Mbps ports for high-speed network connectivity. It can automatically identify and determine the correct transmission speed and half / full duplex mode of the attached devices with its 24 Gigabit ports that support 9K jumbo frame feature. Therefore, the GSW-2401 can handle extremely large amounts of data transmission in a secure topology linking to a backbone or high-power servers.

High Performance

The GSW-2401 provides high performance switch architecture that is capable of providing the non-blocking switch fabric and wire-speed throughput as high as 48Gbps, which greatly simplifies the tasks of upgrading the LAN for catering to increasing bandwidth demands. Besides, the Flow Control function of the GSW-2401 enables routers and servers directly connect to the Switch for fast and reliable data transfer.

All RJ-45 copper interfaces of the GSW-2401 support 10/100/1000Mbps auto-negotiation for optimal speed detection through RJ-45 Category 6, 5 or 5e cables. It also supports standard for auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

Excellent Traffic Transmission

The GSW-2401 supports Store-and-Forward forwarding scheme to ensure low latency and high data integrity, which eliminates unnecessary traffic and relieves congestion on critical network paths. With an intelligent address recognition algorithm, the GSW-2401 could recognize up to 8K different MAC address. The high data throughput and 48Gbps internal switching fabric makes it ideal for most Gigabit environments, especially when network upgrades to a Gigabit environment.

Fanless Design

The GSW-2401 successfully reduces substantial power consumption with the fanless and noiseless design collocating with the effective cooler. Therefore, the GSW-2401 is able to operate stably and quietly in any environment without affecting its performance.

The GSW-2401 Switch positioning is shown as below:

Backbone Switch

With up to 48 Gigabits per second of non-blocking switch fabric, the GSW-2401 can easily provide the high bandwidth required for both now and future.

Server Farm Switch

Provide 24 Gigabit Ethernet ports, the GSW-2401 is ideal to use as a server farm switch connecting to your servers and powerful desktops.

2. PRODUCT FEATURES

Physical Port

- ☐ 24-Port 10/100/1000Base-T Gigabit Ethernet ports
- ☐ Supports auto MDI/MDI-X function

Layer 2 Features

- ☐ Complies with IEEE 802.3, 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T Ethernet standards
- ☐ Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- ☐ Integrated address look-up engine, supporting 8K absolute MAC addresses
- ☐ 9K Jumbo packet support
- ☐ IEEE 802.1Q VLAN packet transparent support
- ☐ IEEE 802.3x flow control for full duplex operation and backpressure for half duplex operation
- ☐ Hardware based 10/100Base-TX, half / full duplex and 1000Base-T full duplex mode, flow control and auto-negotiation
- ☐ Automatic address learning and address aging
- ☐ Supports CSMA/CD protocol

Hardware Features

- ☐ 100~240V AC, 0.5A, 50~60Hz universal power input
- ☐ FCC, CE class A compliant

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

Switch ASIC: Broadcom BCM53334 (Built-in 16-Port Gigabit PHY) x1

PHY: Broadcom BCM50282 (8-Port Gigabit Ethernet Transceiver) x1

3.2 FUNCTION SPECIFICATION

| | |
|---|---|
| Product | GSW-2401 |
| Hardware Specifications | |
| Hardware Version | Version 6 |
| 10/100/1000Base-T MDI/MDIX Ports | 24 |
| Throughput (packet per second) | 35.7Mpps |
| Switch Fabric | 48Gbps / non-blocking |
| Switch Processing Scheme | Store-and-Forward |
| Address Table | 8K entries |
| Switch Packet Buffer | 512 KB |
| Jumbo packet size | 9K |
| Flow Control | Back pressure for half duplex, IEEE 802.3x pause frame for full duplex |
| Standards Conformance | |
| Standards Compliance | IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3x (Full-Duplex Flow Control) |

3.3 PHYSICAL SPECIFICATIONS:

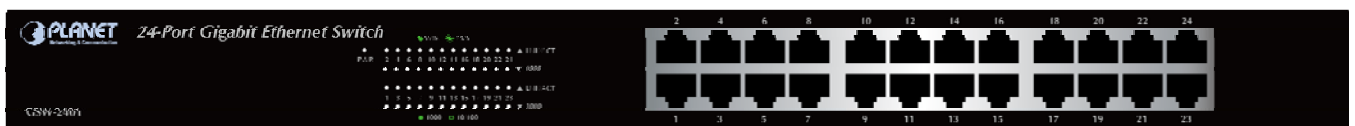
Dimensions:

440 x 180 x 44mm (W x D x H), 1U height

Weight:

2kg

Front Panel:



Rear Panel:



LED Definition

System

| LED | Color | Function |
|-----|-------|---|
| PWR | Green | Lights to indicate that the Switch has power. |

Per 10/100/1000Mbps port

| LED | Color | Function |
|-----------|-------|---|
| LNK / ACT | Green | Lights to indicate the link through that port is established successfully. Blinks indicate that the Switch is actively sending or receiving data over that port. |
| 1000 | Green | Lights to indicate the port is run at 1000Mbps. Off: indicate that the port is operating at 10/100Mbps. |

3.4 ENVIRONMENTAL SPECIFICATION

Operating:

| | |
|--------------------|---------------------------|
| Temperature: | 0°C ~ 50 degrees C |
| Relative Humidity: | 5% ~ 95% (non-condensing) |

Storage:

| | |
|--------------------|---------------------------|
| Temperature: | -10°C ~ 70 degrees C |
| Relative Humidity: | 5% ~ 95% (non-condensing) |

3.5 ELECTRICAL SPECIFICATION

| | | |
|------------------------------------|--|-------|
| Input Voltage: | 100 - 240V AC, 50 - 60Hz, 0.5A. Auto-sensing. | |
| Power Consumption | 110V: 10.6 watts | 36BTU |
| (System on): | 220V: 11.8 watts | 40BTU |
| Power Consumption | 110V: 13.2 watts | 45BTU |
| (Ethernet Full Load no operating): | 220V: 14 watts | 47BTU |
| Power Consumption | 110V: 13.2 watts | 45BTU |
| (Ethernet Full Load operating): | 220V: 14 watts | 47BTU |

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class A, CE

3.7 REALIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.8 BASIC PACKAGING

- GSW-2401 x1
- User's Manual x1
- Power Cord x1
- Rubber Feet x4
- Two Rack-Mounting Brackets with Attachment Screws x8

3.9 PACKING DIMENSION

Dimension: 520mm (W) x 550mm (D) x 265mm (H)

Weight: TBD (Gross Weight)

5pcs in one carton